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MNFRAME.002A1 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Sheikh, et al.	Group Art Unit 2787
Appl. No.	:	08/942,160	
Filed	:	October 1, 1997	
For	:	SYSTEM ARCHITECTURE FOR REMOTE ACCESS AND CONTROL OF ENVIRONMENTAL MANAGEMENT	
Examiner	:	Thomas M. Heckler	

DECLARATION UNDER 37 C.F.R. § 131 TO OVERCOME GIORGIO

1. This declaration is to establish the status of the invention in the above-captioned U.S. patent application in the United States on November 12, 1996, which is the effective date of U.S. Patent No. 5,761,085, entitled Method for Monitoring Environmental Parameters at Network Sites, to Giorgio, which was cited by the Examiner against the above-captioned application.

2. We are the named joint inventors of the described subject matter and all claims in the above-referenced application.

3. We have read the Office Action mailed June 29, 1999 (Paper No. 13), regarding the patent application.

4. We developed our invention as described and claimed in the subject application in this country, and acted with due diligence to reduce the invention to practice from at least November 12, 1996, as evidenced by the following events:

a. By at least November 1995, we had conceived of a control diagnostic and monitor subsystem for a server system. A document, entitled "Raptor System: A Bird's Eye View, Version 0.99," was written at least as early as November 2, 1995, as evidenced by

the document date. A copy of the cover page, and pages 8 and 9 of document is attached as **Exhibit A**. The control diagnostic and monitor subsystem was to supervise or monitor various system attributes, such as environmental conditions, and a historical log of all system events.

Further, Exhibit A, page 8, describes a system to supervise and control specific functions of the first computer through a Control Diagnostic and Monitor (CDM) subsystem implemented by distributed CDM microprocessors connected to an I^2C serial (CDM) bus. The CDM can supervise and manage selected functions externally from a remote second computer via the CDM bus and communication lines thus requiring a remote interface. Examples of monitored environmental conditions of a computer are fan speed, and the temperatures of the ambient air, of the motherboard, and of the backplane.

b. By at least January 1996, we had conceived of using a network of microcontrollers as the monitoring and control hardware of the subject invention. A document, entitled "Raptor Wire Service Architecture, Version 1.0" ("Wire Architecture"), was written at least as early as January 23, 1996, as evidenced by the document date. A copy of the cover page, pages 6-8 and 13-25 of Wire Architecture is attached as **Exhibit B**. Pages 13-19, "Wire Service Network Physical Connections," describe the limitation of "a microcontroller bus providing data communication among the microcontroller and other microcontrollers." The table starting on page 13 illustrates all of the physical signal connections to all the Wire Service processors (microcontrollers). Since individual lines from the microcontrollers are connected to the microcontroller bus, the remote interface microprocessor can provide data communication with the other microcontrollers via the microcontroller bus.

c. By at least April 1996, we had conceived of an architecture for the remote interface module. The remote interface module may be incorporated in or on the server enclosure. For example, the remote interface communicates with external computers via an RS-232 port (the first port) and with the server microcontroller bus via a second port. A schematic, entitled "Schematic of Raptor Remote Board, Revision 01," was drawn at least as early as April 1, 1996, as evidenced by the document date. A copy of sheets 1 of 2 and 2 of 2 of the schematic is attached as **Exhibit C**. Sheet 1 of Exhibit C represents

one embodiment of a schematic diagram of a remote interface board containing a remote interface microcontroller (PIC16C65), memory (MT5LC2568), and an RS-232 (the first port) interface. Sheet 1 also illustrates one embodiment of the limitation of "a memory in data communication with the microcontroller." The schematic describes the memory with connections so that the memory is in data communication with the remote interface microcontroller. Further, an RJ45 connector (P1) (on sheet 2) provides an interconnection point as the second port between the remote interface microcontroller and the server microcontroller bus.

d. The architecture for the remote interface was documented in a specification entitled "Remote Interface Board Specification, Revision 2" ("RIB Specification"), written at least as early as June 21, 1996, as evidenced by the document date. A copy of the RIB Specification is attached as **Exhibit D**. The RIB Specification recites at page 3 that the RIB is an interface between Raptor Wire Services (the microcontroller bus) and an external modem. The system environmental conditions commands are passed through the RS232 connection at the modem side to the Wire Services (microcontroller) bus controlled through the on-board microcontroller. The RS232 connector appears on the left of the diagram on page 6, Figure 2 of Exhibit D and the RJ45 connector appears on the right.

e. By at least October 1996, we developed a revised version of the architecture for the network of microcontrollers. A document, entitled "Raptor Wire Service Architecture, Version 1.3" ("Wire Architecture"), was written at least as early as October 3, 1996, as evidenced by the document date. A copy of the cover and pages 1, 7-10, and 36-37 of "Wire Architecture" is attached as **Exhibit E**. Page 1 contains a Wire Services Hardware block diagram which shows how the remote interface connects with the microcontroller so as to obtain system environmental conditions. A block circuit diagram faithfully describes one embodiment of a configuration of the components and connections comprising the plurality of microcontrollers.

The Wire Service Hardware comprises the microcontroller bus (here called the Wire Service Bus) connected to a plurality of maintenance and control microcontrollers. The remote interface, located in the lower right corner of the diagram, illustrates a remote interface microcontroller (200), a memory (208) connected to the microcontroller (200), a

first port, in data communication with the microcontroller, being capable of receiving and transmitting monitoring data external to the remote interface, e.g., an RS232 connector (204), and a second port capable of receiving and transmitting monitoring data, wherein the second port includes connectivity to a microcontroller bus, e.g., an RJ45 connector (226). This connectivity to the microcontroller bus provides data communication with other microcontrollers.

The block diagram shows the first port (RS232) interface connecting to the "outside world" to receive and transmit data. Further, the diagram also shows the second port (RJ45) capable of receiving and transmitting environmental conditions data from and to the server system (100). The RJ45 connector enables communication with a companion RJ45 connector that is connected to the Wire Service Bus (microcontroller bus) illustrating the remote interface's second port connectivity to the microcontroller bus.

f. A schematic, entitled "Schematic of P6 Mother Board, Revision 54," was written at least as early as October 24, 1996, as evidenced by the document date. A copy of sheet 42 of 60 for the Speed Fan Controller section is attached as **Exhibit F**. This section includes the server end of the RJ45 connector (P13) that connects the microcontroller bus with the remote interface further illustrating the second port's connectivity to the microcontroller bus. Exhibit F also illustrates the connections for environmental conditions data signal paths such as backplane temperature (Temperature Bus 1 and 2) and motherboard fan setting (MBFAN_HL).

g. By at least May 1997, we developed a revised version of the architecture for the remote interface. A schematic, entitled, "Schematic of Raptor Remote Board, Revision 50," was drawn at least as early as May 6, 1997. A copy of sheets 1 of 2 and 2 of 2 is attached as **Exhibit G**. Exhibit G illustrates a first port, in data communication with the microcontroller, being capable of receiving and transmitting data external to the remote interface, specifically, the RS232 connector (P2). In addition, the schematic also illustrates a second port capable of receiving and transmitting environmental conditions data wherein the second port includes connectivity to the microcontroller bus. Specifically, an RJ45 connector (the second port), using the SDA and SCL lines,

interfaces with the server to receive and transmit environmental conditions data from and to the server system.

5. I, Karl S. Johnson, am listed as an inventor on a provisional Patent Application No. 60/046,397, filed May 13, 1997, which is a priority application for the subject application. I, Tahir Sheikh, am listed as the inventor on a provisional Patent Application No. 60/046,397, filed May 13, 1997, which is a priority application for the subject application.

6. We are the listed inventors on the subject regular patent applications filed on October 1, 1997.

7. All acts leading to the reduction of practice were performed in the United States.

8. This declaration is submitted prior to a final rejection.

Penalty of Perjury Statement

We declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application or any patent resulting therefrom.

Dated: Nov. 27, 1999

By: Tahir Q. Sheikh
Tahir Sheikh

Dated: _____

By: _____
Karl S. Johnson

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Dated:_____ By:_____
Tahir Sheikh

Dated: November 20, 1999 By: Karl S Johnson
Karl S. Johnson

Appl. No. : 08/9[redacted]160
Filed : October 1, 199[redacted]

Dated:_____ By:_____
Ken Nguyen

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